What is claimed is:

1. A satellite antenna system for mounting on a vehicle comprising;

an antenna array to receive a satellite signal, said antenna array comprising a plurality of waveguides positioned parallel to one another for guiding received electromagnetic waves of said satellite signal, said waveguides including a ridged portion extending from a bottom surface, said ridge portion positioned longitudinally between a pair of walls coupled to said bottom surface;

a radiating surface disposed adjacent to said waveguides, and

a plurality of radiating elements emitting said electromagnetic waves, said radiating elements being distributed along said radiating surface.

2. The satellite antenna system of claim 1 wherein the satellite signal comprises a direct broadcast satellite signal wherein said radiating elements provide circular polarization.

3. The satellite antenna system of claim 1 wherein each of said radiating elements is an X-shaped cross slot.

4. The satellite antenna system of claim 3 wherein a crossing angle of said X-shaped cross slot is other than about 90 degrees.

5. The satellite antenna system of claim 1 wherein said radiating elements are positioned about half a waveguide wavelength apart from one another.

6. The satellite antenna system of claim 1 wherein said radiating elements are positioned at an offset from a center of a waveguide axis of said waveguide toward one of said walls.

7. The satellite antenna system of claim 1 wherein said radiating elements are equally spaced apart.

8. The satellite antenna system of claim 1 wherein said ridge portion has a rectangular shape.

9. The satellite antenna system of claim 1 wherein said ridge portion has a square shape.

10. The satellite antenna system of claim 1 wherein said antenna array is associated with a circuit board and further comprising an antenna probe associated with each

of said waveguides for coupling electromagnetic energy of said electromagnetic waves between said waveguide and said circuit board.

11. The satellite antenna system of claim 1 wherein said waveguide comprises a bend to rotate a feed end of said waveguide downward.

12. The satellite antenna system of claim 11 wherein said bend is about 90 degrees.

13. The satellite antenna system of claim 11 further comprising an antenna probe printed on a surface of said circuit board, said antenna probe being coupled to said ridge portion of said waveguide.

14. The satellite antenna system of claim 11 further comprising an antenna probe comprising a microstrip terminated by a termination portion, said termination portion being coupled to said ridge portion of said waveguide.

15. The satellite antenna system of claim 11 further comprising a cavity terminating said bend.

16. The satellite antenna system of claim 14 wherein said cavity has a depth of about a quarter wavelength.

17. The satellite antenna system of claims 1 further comprising a first antenna probe associated with a first end of said waveguide to couple a left hand polarization signal from said waveguide to a first beam forming network and a second antenna probe associated with a second end of said waveguide to couple a left hand polarization signal from said waveguide to a second beam forming network.

18. The antenna system of claim 1 further comprising mounting means for mounting said antenna system on a vehicle.

19. An antenna comprising:

a waveguide, said waveguide including a ridged portion extending from a bottom surface, said ridge portion positioned longitudinally between a pair of walls coupled to said bottom surface;

a radiating surface disposed adjacent to said waveguide; and

a plurality of radiating elements, said radiating elements being distributed along said radiating surface.

20. The antenna of claim 19 wherein said waveguide is adapted to receive a direct broadcast satellite signal and said radiating elements provide circular polarization.

21. The antenna of claim 19 wherein each of said radiating elements is an X-shaped cross slot.

22. The antenna of claim 21 wherein a crossing angle of said X-shaped cross slot is other than about 90 degrees.

23. The antenna of claim 19 wherein said radiating elements are positioned about half a waveguide wavelength apart from one another.

24. The antenna of claim 19 wherein said radiating elements are positioned at an offset from a center of a waveguide axis of said waveguide toward one of said walls.

25. The antenna of claim 19 wherein said radiating elements are equally spaced apart.

26. The antenna of claim 19 wherein said ridge portion has a rectangular shape.

27. The antenna of claim 19 wherein said ridge portion has a square shape.

28. The antenna of claim 19 wherein said antenna is formed of a metalized plastic material.

29. The antenna of claim 19 wherein said antenna array is associated with a circuit board and further comprising an antenna probe associated with said waveguide for coupling electromagnetic energy between said waveguide and said circuit board.

30. A transition from microstrip to waveguide comprising:

a waveguide, said waveguide including a ridged portion extending from a bottom surface, said ridge portion positioned longitudinally between a pair of walls coupled to said bottom surface, said waveguide including a bend;

a radiating surface disposed adjacent to said waveguide;

a plurality of radiating elements emitting said electromagnetic waves, said radiating elements being distributed along said radiating surface; and microstrip structure comprising a microstrip terminated on one end by a termination portion, said termination portion having a larger dimension than said microstrip said termination portion contacting said ridge portion below said bend.

31. The transition of claim 30 wherein said bend is about 90 degrees.

32. The transition of claim 30 further comprising a cavity terminating said bend.

33. The transition of claim 30 wherein said cavity has a depth of about a quarter wavelength.

34. A method for manufacturing an antenna comprising:

forming a waveguide, said waveguide including a ridged portion extending from a bottom surface, said ridge portion positioned longitudinally between a pair of walls coupled to said bottom surface:

forming a radiating surface having a plurality of radiating elements, said radiating elements being distributed along said radiating surface; and

coupling said radiating surface to said waveguide.

35. The method of claim 34 wherein said radiating surface is coupled to said waveguide using a dip brazing process.

36. The method of claim 34 wherein said radiating surface is coupled to said waveguide with a plurality of mounting elements.

37. A method for manufacturing an antenna comprising:

forming a waveguide from a plastic material, said waveguide including a ridged portion extending from a bottom surface, said ridge portion positioned longitudinally between a pair of walls coupled to said bottom surface;

forming a radiating surface from a plastic material;

forming a plurality of radiating elements, said radiating elements being distributed along said radiating surface; and

metalizing said waveguide and said radiating surface; and

snap fitting said waveguide and said radiating surface together to form a structure.